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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,805	10/30/2000	William Thornton	98006/17UTL	8722

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ROBERT W STROZIER, PLLC
2925 BRIARPARK, SUITE 930
HOUSTON, TX 77042

EXAMINER
SOTOMAYOR, JOHN

ART UNIT	PAPER NUMBER
3714	

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/699,805	Applicant(s) THORNTON, WILLIAM	
	Examiner John L Sotomayor	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2002 and 02 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 8-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 8-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/30/2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in Paper No. 8 is acknowledged. In response to applicant's amendments filed 8/15/2002 and 10/2/2002, claims 3-7 are canceled which are directed to the non-elected inventions Group II and III and claims 1,2 and the newly added claims 8-24 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2,9,11 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Eggert et al (US 6,443,735).

4. Regarding claim 1, Eggert et al discloses a simulation apparatus comprising a plurality of electronic signals corresponding to a pulse and heart beat (Col 2, lines 25-51), a tactile pulse signal to simulate a pulse signal discernable by touch (Col 2, line 67 and Col 3, lines 1-4), and an audio simulator for generating a correlated heart beat signal (Col 2, lines 29-35).

5. Regarding claim 2, Eggert et al discloses a simulation apparatus comprising a plurality of electronic signals corresponding to a pulse and heart beat (Col 2, lines 25-51) distributed in any fashion, left side or right side, required by the training regimen (Col 2, lines 52-57), a tactile

pulse signal to simulate a pulse signal discernable by touch (Col 2, line 67 and Col 3, lines 1-4), and an audio simulator for generating a correlated heart beat signal (Col 2, lines 29-35) that may be heard through a stethoscope.

6. Regarding claim 9, Eggert et al discloses that the tactile pulse simulator and audio simulator are housed within a housing (Col 3, lines 42-53 and Fig. 2).

7. Regarding claims 11 and 17, Eggert et al discloses that the tactile pulse simulator and audio simulator housing is contained by a simulator that simulates an upper part of a human body including simulated chest and arm portions (Col 2, lines 66-67 and Col 3, lines 1-17).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (1) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

> Determining the scope and contents of the prior art.
> Ascertaining the differences between the prior art and the claims at issue.
> Resolving the level of ordinary skill in the pertinent art.
> Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 8,10,12-16, and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eggert et al in view of Takashina et al (US 6,461,165).

11. Regarding claims 8,10,13, 16, and 19, Eggert et al discloses a simulator designed to represent a patient, such as a manikin, with a plurality of sensors and electronic signals to represent a plurality of physical diagnostic signals such as any one of pulse, heart beat, or lung sounds (Col 2, lines 25-60). Eggert et al does not specifically disclose that the tactile pulse simulator comprises any one of a tactile switch, collapsible tube apparatus or piezoelectric transducer (claims 8 and 16) or that the tactile simulator comprises a resilient cover over a tactile switch (claims 10, 13 and 19). However, Takashina et al teaches that a simulated pulse may be derived from a collapsible tube apparatus built within a simulator comprising a manikin (Col 2, lines 22-35). Takashina also teaches that the tube apparatus is made of a soft rubber or synthetic resin so as to reproduce feeling in a finger that is similar to the human body diagnosis (Col 2, lines 36-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a simulator comprising a manikin with a tactile pulse simulator consisting of a collapsible tube apparatus with a resilient cover over a tactile switch. Combining the patient simulator disclosed by Eggert et al with the teaching of Takashina et al produces a training simulator that has the appearance of a human system and provides a realistic pulse tactile signal.

12. Regarding claim 12, Eggert et al discloses a simulator apparatus wherein pulse simulation signals are detected in a simulated arm in a first housing and audio is detected from the chest, a second housing (Col 3, lines 1-40). Eggert et al does not specifically disclose that the tactile sensor for the pulse is located in the wrist of the simulator (claim 12). However, Takashina teaches that pulsation sensors are located at all major correspondence points with the human

body the simulator is designed to represent (Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a simulator wherein the pulse simulator is located in a simulated wrist and the audio simulator located in the chest portion. Combining the simulator disclosed by Eggert et al with the teaching of Takashina produces a simulator that most closely matches the audio and pulsation locations on a human body.

13. Regarding claim 14, Eggert et al discloses a simulator apparatus wherein pulse simulation signals are detected in a simulated arm in a first housing and audio is detected from the chest (Col 3, lines 1-40). Eggert et al does not specifically disclose that the tactile sensor and the audio sensor are located in two separate housings. However, Takashina teaches that pulsation sensors are located at all major correspondence points with the human body the simulator is designed to represent (Fig. 2) and that the audio sensor may be located in a second housing (Col 2, lines 52-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a simulator wherein the pulse simulator is located in a simulated wrist and the audio simulator located in the chest portion. Combining the simulator disclosed by Eggert et al with the teaching of Takashina produces a simulator that provides a more accurate teaching methodology for students.

14. Regarding claim 15, Eggert et al discloses a simulator apparatus wherein pulse simulation signals are detected in a simulated arm and audio is detected from the chest (Col 3, lines 1-40). Eggert et al does not specifically disclose that the tactile sensor for the pulse is located in the wrist of the simulator or that the tactile simulator comprises a resilient cover over a tactile switch. However, Takashina teaches that pulsation sensors are located at all major correspondence points with the human body the simulator is designed to represent (Fig. 2) and

that a tube apparatus is made of a soft rubber or synthetic resin so as to reproduce feeling in a finger that is similar to the human body diagnosis (Col 2, lines 36-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a simulator wherein the pulse simulator is located in a simulated wrist and that the tactile simulator comprises a resilient cover over a tactile switch. Combining the simulator disclosed by Eggert et al with the teaching of Takashina produces a simulator in which diagnosis points are located in a fashion to emulate the human body for better training of medical professionals.

15. Regarding claims 18, Eggert et al discloses a simulator apparatus wherein pulse simulation signals are detected in a simulated arm (Col 3, lines 23-40). Eggert et al does not specifically disclose that the tactile sensor for the pulse is located in either wrist of the simulator. However, Takashina teaches that pulsation sensors are located at all major correspondence points with the human body the simulator is designed to represent (Fig. 2) including pulsation points in both left and right wrists. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a simulator wherein the pulse simulator is located in both a right and left simulated wrist in the body of the simulator. Combining the simulator disclosed by Eggert et al with the teaching of Takashina produces a simulator with the ability for multiple use by training professionals.

16. Regarding claims 20 and 22, Eggert et al discloses a simulator apparatus for generating pulse and heart beat simulations comprising a simulated upper body portion with a chest and left and right arm portions, a playback device for generating electronic signals corresponding to pulse and heartbeat signals, a tactile pulse simulator and a heart beat signal within the chest housing of the simulator with the heart beat detectable by a stethoscope (Col 2 and Col 3).

Eggert et al does not specifically disclose a left and right pulse signal, or that the pulse signal is a pressure pulse signal. However, Takashina teaches that a pressure pulse signal may be generated through flexible tubing (Col 2, lines 23-53) and that pulsation signals are sent to detection locations on both the right and left wrist of a manikin simulator (Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a training simulator apparatus for generating pulse and heart beat simulations comprising a simulated upper body portion, a playback device for generating electronic signals corresponding to pulse and heartbeat signals, a tactile pulse simulator and a heart beat signal within the chest housing of the simulator with the heart beat detectable by a stethoscope with detectable pulsation signals in a left and right wrist location. Combining the apparatus disclosed by Eggert et al with the teaching of Takashina produces a training simulator that closely resembles the subjects for which the simulator is designed providing a realistic training environment for medical professionals.

17. Regarding claim 21, Eggert et al discloses a simulator designed to represent a patient, such as a manikin, with a plurality of sensors and electronic signals to represent a plurality of physical diagnostic signals such as any one of pulse, heart beat, or lung sounds (Col 2, lines 25-60). Eggert et al does not specifically disclose that the tactile pulse simulator comprises any one of a tactile switch, collapsible tube apparatus or piezoelectric transducer. However, Takashina et al teaches that a simulated pulse may be derived from a collapsible tube apparatus as a tactile pulse simulator built within a simulator comprising a manikin (Col 2, lines 22-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a simulator comprising a manikin with a tactile pulse simulator. Combining the patient simulator

disclosed by Eggert et al with the teaching of Takashina et al produces a training simulator that has the appearance of a human system and provides a realistic pulse tactile signal.

18. Regarding claim 23, Eggert et al discloses a simulator apparatus wherein pulse simulation signals are detected in a simulated arm (Col 3, lines 23-40). Eggert et al does not specifically disclose that the tactile sensor for the pulse is located in either wrist of the simulator. However, Takashina teaches that pulsation sensors are located at all major correspondence points with the human body the simulator is designed to represent (Fig. 2) including pulsation points in both left and right wrists. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a simulator wherein the pulse simulator is located in both a right and left simulated wrist in the body of the simulator. Combining the simulator disclosed by Eggert et al with the teaching of Takashina produces a simulator with the ability for multiple use by training professionals.

19. Regarding claim 24, Eggert et al discloses a simulator apparatus wherein pulse simulation signals are detected in a simulated arm and audio is detected from the chest (Col 3, lines 1-40). Eggert et al does not specifically disclose that the tactile sensor for the pulse is located in the wrist of the simulator or that the tactile simulator comprises a resilient cover over a tactile switch. However, Takashina teaches that pulsation sensors are located at all major correspondence points with the human body the simulator is designed to represent (Fig. 2) and that a tube apparatus is made of a soft rubber or synthetic resin so as to reproduce feeling in a finger that is similar to the human body diagnosis (Col 2, lines 36-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a simulator wherein the pulse simulator is located in a simulated wrist and that the tactile simulator

comprises a resilient cover over a tactile switch. Combining the simulator disclosed by Eggert et al with the teaching of Takashina produces a simulator in which diagnosis points are located in a fashion to emulate the human body for better training of medical professionals.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Van Meurs et al (US 6,273,728) for a discussion of a life support simulator with detectable diagnostic signals.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Sotomayor whose telephone number is 703-305-4558. The examiner can normally be reached on 6:30-4:00 M-F.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7768 for regular communications and 703-308-7768 for After Final communications.

23. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4558.

jls
December 12, 2002

Joe H. Cheng
Primary Examiner